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(FILE 'HOME' ENTERED AT 11:28:17 ON 20 JUN 2007)

FILE 'REGISTRY' ENTERED AT 11:28:31 ON 20 JUN 2007

L1 STRUCTURE UPLOADED

L2 24 S L1 SSS SAM

L3 1449 S L1 SSS FULL

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:31:56 ON 20 JUN 2007

L4 463 S L3

L5 2 S L4 AND STARCH?

L6 1 S L5 AND POLYSACCHARIDE?

L7 5 S L4 AND POLYSACCHARIDE?

L8 1 S L4 AND AMYLOSE?

L9 6 S L4 AND ?SACCHARIDE?

L10 3 S L4 AND ?STARCH?

L11 0 S L5 AND BACTERIA?

L12 0 S L5 AND HERPES?

L13 0 S L5 AND INFLUENZ?

L14 0 S L9 AND BACTERIA?

L15 0 S L9 AND HERPES?

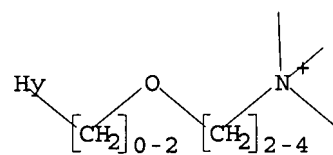
L16 0 S L9 AND INFLUENZ?

L1            STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1                    STR



Structure attributes must be viewed using STN Express query preparation.

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:868537 CAPLUS  
DOCUMENT NUMBER: 136:7970  
TITLE: A new type of cationic starch product,  
preparation thereof and its use as wet end additives  
for papermaking  
INVENTOR(S): Kaeki, Jouko; Luttikhedde, Hendrik; Nurmi, Kari;  
Brunow, Goesta; Granoe, Hanna; Hase, Anneli; Laine,  
Aki; Yli-Kauhahuoma, Jari  
PATENT ASSIGNEE(S): Raisio Chemicals Ltd., Finland  
SOURCE: PCT Int. Appl., 19 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090199	A2	20011129	WO 2001-FI498	20010523
WO 2001090199	A3	20020314		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
FI 2000001266	A	20011126	FI 2000-1266	20000525
FI 110946	B1	20030430		
CA 2410353	A1	20011129	CA 2001-2410353	20010523
EP 1290034	A2	20030312	EP 2001-936487	20010523
EP 1290034	B1	20040331		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
AT 263190	T	20040415	AT 2001-936487	20010523
PT 1290034	T	20040831	PT 2001-936487	20010523
US 2003177915	A1	20030925	US 2002-296387	20021125
US 7186823	B2	20070306		

PRIORITY APPLN. INFO.: FI 2000-1266 A 20000525  
WO 2001-FI498 W 20010523

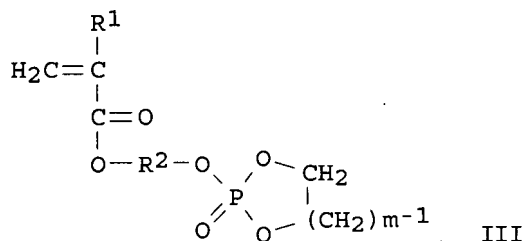
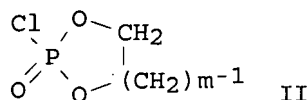
AB The starch product comprises starch (St) and a cationizing reagent, which is made from choline or its synthetic equivalent, whereby the cationizing reagent has reacted with a part of the hydroxyl groups of the starch according to the structure formula  $\text{Me}_3\text{N}+\text{CHRCHROCH}_2\text{CH}(\text{OH})\text{CHOST}$  or  $\text{Me}_3\text{N}+\text{CHRCHROACH}_2\text{CH}(\text{OH})\text{CHOST}$  where A is a hydrocarbon chain, the substituents R are hydrogens, lower or higher acyclic alkyl groups, substituted or unsubstituted cykloalkyl groups, substituted or unsubstituted aryl or heteroaryl groups, lower or higher alkyl groups or non-aromatic heterocyclic groups containing alkoxy groups or other heteroatoms. Thus, etherifying potato starch 10.0 with 5,6-epoxy-1-trimethylammonium-3-oxahexane 6.04 in water 23 containing  $\text{Na}_2\text{SO}_4$  6.00 and NaOH 1.23 g gave a cationic starch.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:206913 CAPLUS  
DOCUMENT NUMBER: 130:301745  
TITLE: (Meth)acrylate esters, their polymers, preparation of the esters and polymers, and biocompatible materials using the polymers  
INVENTOR(S): Nakaya, Tadao

PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11080187	A	19990326	JP 1997-249137	19970912
PRIORITY APPLN. INFO.: GI			JP 1997-249137	19970912



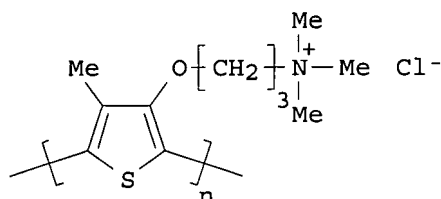
AB (meth)acrylate esters  $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Acyl.Sug.}$  [I;  
 R<sup>1</sup> = H, Me; R<sup>2</sup>, R<sup>5</sup> = (BO)<sub>k-1</sub>B; B = C<sub>2-12</sub> alkylene; k (average number) = 1-100;  
 B

may differ in different unit; R<sup>3</sup>, R<sup>4</sup> = C<sub>1-18</sub> hydrocarbyl; m = 1-6;  
 Acyl.Sug. = residue of monosaccharide (i), oligosaccharide (ii), and polysaccharide (iii) in which OH groups are acylated with C<sub>2-8</sub> acyl groups, where (i) is selected from glucose, galactose, mannose, allose, aldose, gulose, idose, talose, xylose, ribose, arabinose, and lyxose, (ii) is selected from cellobiose, lactose, maltose, sucrose, trehalose, and raffinose, and (iii) is selected from heparin, cellulose, starch, chitin, lichenan, pectin, glycogen, and dextrin] are prepared by (1) reaction of  $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OH}$  (R<sup>1</sup>, R<sup>2</sup> = same as above) with cyclic P compds. II (m = same as above) to give (meth)acrylate esters III (R<sup>1</sup>, R<sup>2</sup>, m = same as above), (2) acylation of all OH groups of the saccharides selected from (i), (ii), and (iii) with C<sub>2-8</sub> acylation agents, (3) halogenation of the anomeric C of the O-acylated saccharides, (4) reaction of the resulting saccharide halides with R<sup>3</sup>R<sup>4</sup>NR<sup>5</sup>OH (R<sup>3</sup>-R<sup>5</sup> = same as above), and (5) reaction of the resulting R<sup>3</sup>R<sup>4</sup>NR<sup>5</sup>O-Acyl.Sug. [IV; R<sup>3</sup>-R<sup>5</sup> = same as above; Acyl.Sug. = residue of the saccharides (i), (ii), or (iii) in which all free OH groups are acylated] with III. (meth)acrylate ester polymers  $[[\text{H}_2\text{CCR}^1[\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Acyl.Sug.}]]_a\text{Mb}]_p$  (V; R<sup>1</sup>-R<sup>5</sup>, m = same as above; M = group derived from other radically polymerizable monomers; a = 0.01-1; b = 0-0.99; p = 1-1000) are prepared by radical polymerization of I with other monomers (M). (meth)acrylate ester polymers  $[[\text{H}_2\text{CCR}^1[\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Sug.}]]_a\text{Mb}]_p$  (R<sup>1</sup>-R<sup>5</sup>, m, M, a, b, p = same as above; Sug. = residue of the saccharides above in which acyl groups are hydrolyzed) are prepared by hydrolysis of the acyl groups of the saccharide residues of V. Thus,  $\text{H}_2\text{C}:\text{CMeCO}_2(\text{CH}_2)_2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)_2\text{N}+\text{Me}_2(\text{CH}_2)_2\text{O}-\text{Ac.Glc}$ , prepared in the 5 steps above, was polymerized in the presence of AIBN and hydrolyzed to give a homopolymer hydrolyzate. Blood platelets did not adhere to a film from the hydrolyzed polymer.

L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:944187 CAPLUS  
DOCUMENT NUMBER: 145:336794  
TITLE: Spiral conductive polymer nanowire-polysaccharide complexes and their manufacture  
INVENTOR(S): Shinkai, Seiji; Mizu, Masami; Li, Chun; Numata, Munenori  
PATENT ASSIGNEE(S): Japan Science and Technology Agency, Japan; Shin Mitsui Sugar Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006241334	A	20060914	JP 2005-59838	20050304
PRIORITY APPLN. INFO.: GI			JP 2005-59838	20050304



AB The complexes comprise spiral conductive polymer chains included in  $\beta$ -1,3-glucan. Thus, triple helix schizophyllan was dissolved in DMSO as single chain and mixed with aqueous solution of water-soluble polythiophene I to give a complex, determined by UV and fluorescence spectrum, CD, and AFM.

L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1160057 CAPLUS  
DOCUMENT NUMBER: 144:51799  
TITLE: Water-soluble Poly-thiophene as an optical probe for detection of the helicity and conformational transition in polysaccharides  
AUTHOR(S): Li, Chun; Numata, Munenori; Hasegawa, Teruaki; Sakurai, Kazuo; Shinkai, Seiji  
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, 6-10-1 Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan  
SOURCE: Chemistry Letters (2005), 34(10), 1354-1355  
CODEN: CMLTAG; ISSN: 0366-7022  
PUBLISHER: Chemical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A conformation-sensitive optical method for monitoring the random coil-helix transition of polysaccharides has been developed by using a water-soluble Poly-thiophene.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

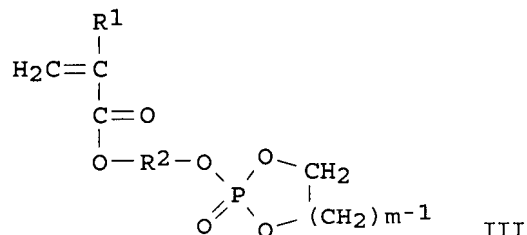
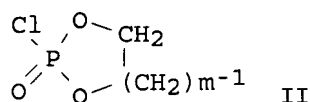
L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:204636 CAPLUS

DOCUMENT NUMBER: 142:430679  
 TITLE: Self-assembly of supramolecular chiral insulated molecular wire  
 AUTHOR(S): Li, Chun; Numata, Munenori; Bae, Ah-Hyun; Sakurai, Kazuo; Shinkai, Seiji  
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan  
 SOURCE: Journal of the American Chemical Society (2005), 127(13), 4548-4549  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 142:430679  
 AB A complex was prepared by mixing a DMSO solution of schizophyllan (I) of a single random coil to a water solution of poly[3-(4-methyl-3'-thienyloxy)propyltrimethylammonium chloride] (II). The interaction between I and II forced the II backbone to adopt a planar conformation. The complex was determined by absorption and emission spectra, CD, and AFM.  
 REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:206913 CAPLUS  
 DOCUMENT NUMBER: 130:301745  
 TITLE: (Meth)acrylate esters, their polymers, preparation of the esters and polymers, and biocompatible materials using the polymers  
 INVENTOR(S): Nakaya, Tadao  
 PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11080187	A	19990326	JP 1997-249137	19970912
PRIORITY APPLN. INFO.: GI			JP 1997-249137	19970912



AB (meth)acrylate esters H<sub>2</sub>C:CR<sup>1</sup>CO<sub>2</sub>R<sup>2</sup>OP(O)(O-)O(CH<sub>2</sub>)<sup>m</sup>N+R<sup>3</sup>R<sup>4</sup>R<sup>5</sup>O-Acyl.Sug. [I;

R1 = H, Me; R2, R5 = (BO)<sub>k-1</sub>B; B = C2-12 alkylene; k (average number) = 1-100;

B  
may differ in different unit; R3, R4 = C1-18 hydrocarbyl; m = 1-6;  
Acyl.Sug. = residue of monosaccharide (i), oligosaccharide (ii), and polysaccharide (iii) in which OH groups are acylated with C2-8 acyl groups, where (i) is selected from glucose, galactose, mannose, allose, aldose, gulose, idose, talose, xylose, ribose, arabinose, and lyxose, (ii) is selected from cellobiose, lactose, maltose, sucrose, trehalose, and raffinose, and (iii) is selected from heparin, cellulose, starch, chitin, lichenan, pectin, glycogen, and dextrin] are prepared by (1) reaction of H<sub>2</sub>C:CR1CO<sub>2</sub>R<sub>2</sub>OH (R1, R2 = same as above) with cyclic P compds. II (m = same as above) to give (meth)acrylate esters III (R1, R2, m = same as above), (2) acylation of all OH groups of the saccharides selected from (i), (ii), and (iii) with C2-8 acylation agents, (3) halogenation of the anomeric C of the O-acylated saccharides, (4) reaction of the resulting saccharide halides with R<sub>3</sub>R<sub>4</sub>NR<sub>5</sub>OH (R<sub>3</sub>-R<sub>5</sub> = same as above), and (5) reaction of the resulting R<sub>3</sub>R<sub>4</sub>NR<sub>5</sub>O-Acyl.Sug. [IV; R<sub>3</sub>-R<sub>5</sub> = same as above; Acyl.Sug. = residue of the saccharides (i), (ii), or (iii) in which all free OH groups are acylated] with III. (meth)acrylate ester polymers [[H<sub>2</sub>CCR1[CO<sub>2</sub>R<sub>2</sub>OP(O)(O-)O(CH<sub>2</sub>)mN+R<sub>3</sub>R<sub>4</sub>R<sub>5</sub>O-Acyl.Sug.]]aMb]p (V; R1-R5, m = same as above; M = group derived from other radically polymerizable monomers; a = 0.01-1; b = 0-0.99; p = 1-1000) are prepared by radical polymerization of I with other monomers (M). (meth)acrylate ester polymers [[H<sub>2</sub>CCR1[CO<sub>2</sub>R<sub>2</sub>OP(O)(O-)O(CH<sub>2</sub>)mN+R<sub>3</sub>R<sub>4</sub>R<sub>5</sub>O-Sug.]]aMb]p (R1-R5, m, M, a, b, p = same as above; Sug. = residue of the saccharides above in which acyl groups are hydrolyzed) are prepared by hydrolysis of the acyl groups of the saccharide residues of V. Thus, H<sub>2</sub>C:CM<sub>2</sub>CO<sub>2</sub>(CH<sub>2</sub>)<sub>2</sub>OP(O)(O-)O(CH<sub>2</sub>)<sub>2</sub>N+Me<sub>2</sub>(CH<sub>2</sub>)<sub>2</sub>O-Ac.Glc, prepared in the 5 steps above, was polymerized in the presence of AIBN and hydrolyzed to give a homopolymer hydrolyzate. Blood platelets did not adhere to a film from the hydrolyzed polymer.

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1976:67815 CAPLUS  
DOCUMENT NUMBER: 84:67815  
TITLE: Hardening photographic layers  
INVENTOR(S): Nittel, Fritz; Czernik, Karl; Sauerteig, Wolfgang; Himmelmann, Wolfgang; Bergthaller, Peter  
PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 56 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2417779	A1	19751030	DE 1974-2417779	19740411
BE 827654	A2	19751007	BE 1975-1006576	19750407
CA 1062070	A1	19790911	CA 1975-224185	19750409
FR 2267569	A1	19751107	FR 1975-11449	19750411
FR 2267569	B1	19810925		
JP 50142019	A	19751115	JP 1975-43449	19750411
JP 57046539	B	19821004		
CH 616514	A5	19800331	CH 1975-4679	19750411
US 4233398	A	19801111	US 1978-881027	19780224
PRIORITY APPLN. INFO.:			DE 1974-2417779	A 19740411
			US 1975-565416	A2 19750407

GI For diagram(s), see printed CA Issue.

AB A process for hardening gelatin-containing photog. emulsions with fast-working hardening agents, such as carbamoylpyridinium compds., carbamoyloxypyridinium compds., carbodiimides, or dihydroquinoline derivs., involves coating the emulsions with a solution of the hardening agent in a polysaccharide which does not react with the

hardening agent and which itself has excellent film-forming characteristics. Thus, a solution containing I 1 mole % in 2% Kelco SCS MV (cellulose sulfate solution) was coated on a dry 5  $\mu$  thick emulsion layer that contained gelatin 80, AgBr 35, and N-heptadecyl-1-hydroxy-4-sulfo-2-naphthamide 24 g, dried, and the swell factor and the wet strength values were determined for the emulsion directly after drying and after storage for 36 hr at 57° and 34% relative humidity. The swell factor was 3.0 and the wet strength was 1200 p for the fresh emulsion layer and 3.1 and 1200 p resp., for the stored layer vs. 3.8 and 1000, resp., and 3.9 and 1000, resp., for a control using gelatin as the coating agent.



L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1160057 CAPLUS

DOCUMENT NUMBER: 144:51799

TITLE: Water-soluble Poly-thiophene as an optical probe for detection of the helicity and conformational transition in polysaccharides

AUTHOR(S): Li, Chun; Numata, Munenori; Hasegawa, Teruaki; Sakurai, Kazuo; Shinkai, Seiji

CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, 6-10-1 Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan

SOURCE: Chemistry Letters (2005), 34(10), 1354-1355

CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A conformation-sensitive optical method for monitoring the random coil-helix transition of polysaccharides has been developed by using a water-soluble Poly-thiophene.

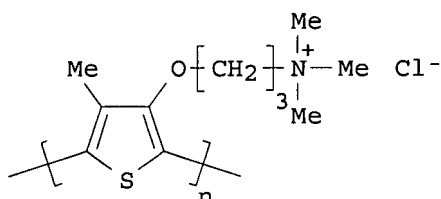
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:944187 CAPLUS  
DOCUMENT NUMBER: 145:336794  
TITLE: Spiral conductive polymer nanowire-polysaccharide complexes and their manufacture  
INVENTOR(S): Shinkai, Seiji; Mizu, Masami; Li, Chun; Numata, Munenori  
PATENT ASSIGNEE(S): Japan Science and Technology Agency, Japan; Shin Mitsui Sugar Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006241334	A	20060914	JP 2005-59838	20050304
PRIORITY APPLN. INFO.:			JP 2005-59838	20050304

GI



AB The complexes comprise spiral conductive polymer chains included in  $\beta$ -1,3-glucan. Thus, triple helix schizophyllan was dissolved in DMSO as single chain and mixed with aqueous solution of water-soluble polythiophene I to give a complex, determined by UV and fluorescence spectrum, CD, and AFM.

L9 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1160057 CAPLUS  
DOCUMENT NUMBER: 144:51799  
TITLE: Water-soluble Poly-thiophene as an optical probe for detection of the helicity and conformational transition in polysaccharides  
AUTHOR(S): Li, Chun; Numata, Munenori; Hasegawa, Teruaki; Sakurai, Kazuo; Shinkai, Seiji  
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, 6-10-1 Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan  
SOURCE: Chemistry Letters (2005), 34(10), 1354-1355  
CODEN: CMLTAG; ISSN: 0366-7022  
PUBLISHER: Chemical Society of Japan  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A conformation-sensitive optical method for monitoring the random coil-helix transition of polysaccharides has been developed by using a water-soluble Poly-thiophene.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:204636 CAPLUS

DOCUMENT NUMBER: 142:430679  
 TITLE: Self-assembly of supramolecular chiral insulated molecular wire  
 AUTHOR(S): Li, Chun; Numata, Munenori; Bae, Ah-Hyun; Sakurai, Kazuo; Shinkai, Seiji  
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan  
 SOURCE: Journal of the American Chemical Society (2005), 127(13), 4548-4549  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 142:430679  
 AB A complex was prepared by mixing a DMSO solution of schizophyllan (I) of a single random coil to a water solution of poly[3-(4-methyl-3'-thienyloxy)propyltrimethylammonium chloride] (II). The interaction between I and II forced the II backbone to adopt a planar conformation. The complex was determined by absorption and emission spectra, CD, and AFM.  
 REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:482163 CAPLUS  
 DOCUMENT NUMBER: 141:42536  
 TITLE: Hair dyeing compositions comprising a tertiary p-phenylenediamine with a pyrrolidine ring and a monosaccharide or disaccharide  
 INVENTOR(S): Cotteret, Jean; Lagrange, Alain  
 PATENT ASSIGNEE(S): L'oreal, Fr.  
 SOURCE: Eur. Pat. Appl., 50 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1428508	A1	20040616	EP 2003-293133	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
FR 2848442	A1	20040618	FR 2002-15775	20021213
US 2004221400	A1	20041111	US 2003-735292	20031212
PRIORITY APPLN. INFO.:			FR 2002-15775	A 20021213
			US 2003-444623P	P 20030204

OTHER SOURCE(S): MARPAT 141:42536  
 AB Hair dyeing compns. comprise a tertiary p-phenylenediamine with a pyrrolidine ring and a monosaccharide or disaccharide. Thus, a composition contained oleic acid 9, polyglyceryl oleyl ether 12, diethylaminopropyl laurylamino succinamate sodium salt 3, ethoxylated oleylamine 7, ethoxylated alkyl ether monoethanolamide 10, ammonium acetate 20, hexylene glycol 20, reducing agents 0.915, saccharose 1, sequestrants 1, resorcinol 0.085, [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium chloride 1.0, 2-methyl-5-aminophenol 0.5, perfume qs, ammonia 10.2, and water qs to 100 g. The above composition was mixed with 6% H2O2 and applied onto hair.  
 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:206913 CAPLUS  
 DOCUMENT NUMBER: 130:301745

TITLE: (Meth)acrylate esters, their polymers, preparation of the esters and polymers, and biocompatible materials using the polymers

INVENTOR(S): Nakaya, Tadao

PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
CODEN: JKXXAF

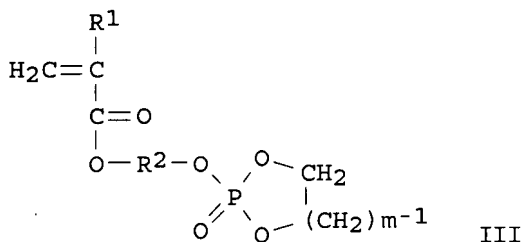
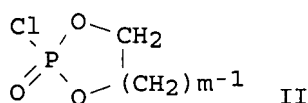
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11080187	A	19990326	JP 1997-249137	19970912
PRIORITY APPLN. INFO.: GI			JP 1997-249137	19970912



AB (meth)acrylate esters  $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Acyl.Sug.}$  [I;  $\text{R}^1 = \text{H}, \text{Me}$ ;  $\text{R}^2, \text{R}^5 = (\text{BO})_k-1\text{B}$ ;  $\text{B} = \text{C}_2-12$  alkylene;  $k$  (average number) = 1-100;

B may differ in different unit;  $\text{R}^3, \text{R}^4 = \text{C}_1-18$  hydrocarbyl;  $m = 1-6$ ; Acyl.Sug. = residue of monosaccharide (i), oligosaccharide (ii), and polysaccharide (iii) in which OH groups are acylated with C<sub>2</sub>-8 acyl groups, where (i) is selected from glucose, galactose, mannose, allose, aldose, gulose, idose, talose, xylose, ribose, arabinose, and lyxose, (ii) is selected from cellobiose, lactose, maltose, sucrose, trehalose, and raffinose, and (iii) is selected from heparin, cellulose, starch, chitin, lichenan, pectin, glycogen, and dextrin] are prepared by (1) reaction of  $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OH}$  ( $\text{R}^1, \text{R}^2 =$  same as above) with cyclic P compds. II ( $m =$  same as above) to give (meth)acrylate esters III ( $\text{R}^1, \text{R}^2, m =$  same as above), (2) acylation of all OH groups of the saccharides selected from (i), (ii), and (iii) with C<sub>2</sub>-8 acylation agents, (3) halogenation of the anomeric C of the O-acylated saccharides, (4) reaction of the resulting saccharide halides with  $\text{R}^3\text{R}^4\text{NR}^5\text{OH}$  ( $\text{R}^3-\text{R}^5 =$  same as above), and (5) reaction of the resulting  $\text{R}^3\text{R}^4\text{NR}^5\text{O}-\text{Acyl.Sug.}$  [IV;  $\text{R}^3-\text{R}^5 =$  same as above; Acyl.Sug. = residue of the saccharides (i), (ii), or (iii) in which all free OH groups are acylated] with III. (meth)acrylate ester polymers  $[[\text{H}_2\text{CCR}^1[\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Acyl.Sug.}]]_a\text{Mb}]_p$  (V;  $\text{R}^1-\text{R}^5, m =$  same as above;  $M =$  group derived from other radically polymerizable monomers;  $a = 0.01-1$ ;  $b = 0-0.99$ ;  $p = 1-1000$ ) are prepared by radical polymerization of I with other monomers (M). (meth)acrylate ester polymers  $[[\text{H}_2\text{CCR}^1[\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Sug.}]]_a\text{Mb}]_p$  ( $\text{R}^1-\text{R}^5, m, M, a, b, p =$  same as above; Sug. = residue of the saccharides above in

which acyl groups are hydrolyzed) are prepared by hydrolysis of the acyl groups of the saccharide residues of V. Thus, H<sub>2</sub>C:CM<sub>2</sub>CO<sub>2</sub>(CH<sub>2</sub>)<sub>20</sub>P(O)(O-)O(CH<sub>2</sub>)<sub>2</sub>N+Me<sub>2</sub>(CH<sub>2</sub>)<sub>20</sub>-Ac.Glc, prepared in the 5 steps above, was polymerized in the presence of AIBN and hydrolyzed to give a homopolymer hydrolyzate. Blood platelets did not adhere to a film from the hydrolyzed polymer.

L9 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1976:67815 CAPLUS  
DOCUMENT NUMBER: 84:67815  
TITLE: Hardening photographic layers  
INVENTOR(S): Nittel, Fritz; Czernik, Karl; Sauerteig, Wolfgang; Himmelmann, Wolfgang; Bergthaller, Peter  
PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 56 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2417779	A1	19751030	DE 1974-2417779	19740411
BE 827654	A2	19751007	BE 1975-1006576	19750407
CA 1062070	A1	19790911	CA 1975-224185	19750409
FR 2267569	A1	19751107	FR 1975-11449	19750411
FR 2267569	B1	19810925		
JP 50142019	A	19751115	JP 1975-43449	19750411
JP 57046539	B	19821004		
CH 616514	A5	19800331	CH 1975-4679	19750411
US 4233398	A	19801111	US 1978-881027	19780224
PRIORITY APPLN. INFO.:			DE 1974-2417779	A 19740411
			US 1975-565416	A2 19750407

GI For diagram(s), see printed CA Issue.

AB A process for hardening gelatin-containing photog. emulsions with fast-working hardening agents, such as carbamoylpyridinium compds., carbamoyloxypyridinium compds., carbodiimides, or dihydroquinoline derivs., involves coating the emulsions with a solution of the hardening agent in a polysaccharide which does not react with the hardening agent and which itself has excellent film-forming characteristics. Thus, a solution containing I 1 mole % in 2% Kelco SCS MV (cellulose sulfate solution) was coated on a dry 5 μ thick emulsion layer that contained gelatin 80, AgBr 35, and N-heptadecyl-1-hydroxy-4-sulfo-2-naphthamide 24 g, dried, and the swell factor and the wet strength values were determined for the emulsion directly after drying and after storage for 36 hr at 57° and 34% relative humidity. The swell factor was 3.0 and the wet strength was 1200 p for the fresh emulsion layer and 3.1 and 1200 p resp., for the stored layer vs. 3.8 and 1000, resp., and 3.9 and 1000, resp., for a control using gelatin as the coating agent.

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:868537 CAPLUS  
DOCUMENT NUMBER: 136:7970  
TITLE: A new type of cationic starch product,  
preparation thereof and its use as wet end additives  
for papermaking  
INVENTOR(S): Kaeki, Jouko; Luttikhedde, Hendrik; Nurmi, Kari;  
Brunow, Goesta; Granoe, Hanna; Hase, Anneli; Laine,  
Aki; Yli-Kauhahuoma, Jari  
PATENT ASSIGNEE(S): Raisio Chemicals Ltd., Finland  
SOURCE: PCT Int. Appl., 19 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090199	A2	20011129	WO 2001-FI498	20010523
WO 2001090199	A3	20020314		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
FI 2000001266	A	20011126	FI 2000-1266	20000525
FI 110946	B1	20030430		
CA 2410353	A1	20011129	CA 2001-2410353	20010523
EP 1290034	A2	20030312	EP 2001-936487	20010523
EP 1290034	B1	20040331		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
AT 263190	T	20040415	AT 2001-936487	20010523
PT 1290034	T	20040831	PT 2001-936487	20010523
US 2003177915	A1	20030925	US 2002-296387	20021125
US 7186823	B2	20070306		

PRIORITY APPLN. INFO.: FI 2000-1266 A 20000525  
WO 2001-FI498 W 20010523

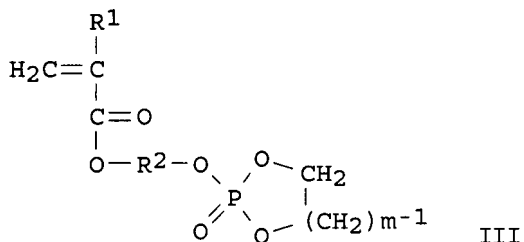
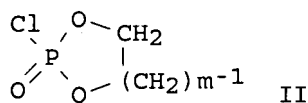
AB The starch product comprises starch (St) and a cationizing reagent, which is made from choline or its synthetic equivalent, whereby the cationizing reagent has reacted with a part of the hydroxyl groups of the starch according to the structure formula  
 $\text{Me}_3\text{N}+\text{CHRCHROCH}_2\text{CH}(\text{OH})\text{CHOST}$  or  $\text{Me}_3\text{N}+\text{CHRCHROACH}_2\text{CH}(\text{OH})\text{CHOST}$  where A is a hydrocarbon chain, the substituents R are hydrogens, lower or higher acyclic alkyl groups, substituted or unsubstituted cykloalkyl groups, substituted or unsubstituted aryl or heteroaryl groups, lower or higher alkyl groups or non-aromatic heterocyclic groups containing alkoxy groups or other heteroatoms. Thus, etherifying potato starch 10.0 with 5,6-epoxy-1-trimethylammonium-3-oxahexane 6.04 in water 23 containing  $\text{Na}_2\text{SO}_4$  6.00 and NaOH 1.23 g gave a cationic starch.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:206913 CAPLUS  
DOCUMENT NUMBER: 130:301745  
TITLE: (Meth)acrylate esters, their polymers, preparation of the esters and polymers, and biocompatible materials using the polymers  
INVENTOR(S): Nakaya, Tadao

PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11080187	A	19990326	JP 1997-249137	19970912
PRIORITY APPLN. INFO.: GI			JP 1997-249137	19970912



AB (meth)acrylate esters  $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Acyl.Sug.}$  [I;  
 R<sup>1</sup> = H, Me; R<sup>2</sup>, R<sup>5</sup> = (BO)k-1B; B = C<sub>2</sub>-12 alkylene; k (average number) = 1-100;  
 B

may differ in different unit; R<sup>3</sup>, R<sup>4</sup> = C<sub>1</sub>-18 hydrocarbyl; m = 1-6;  
 Acyl.Sug. = residue of monosaccharide (i), oligosaccharide (ii), and polysaccharide (iii) in which OH groups are acylated with C<sub>2</sub>-8 acyl groups, where (i) is selected from glucose, galactose, mannose, allose, aldose, gulose, idose, talose, xylose, ribose, arabinose, and lyxose, (ii) is selected from cellobiose, lactose, maltose, sucrose, trehalose, and raffinose, and (iii) is selected from heparin, cellulose, starch, chitin, lichenan, pectin, glycogen, and dextrin] are prepared by (1) reaction of  $\text{H}_2\text{C}:\text{CR}^1\text{CO}_2\text{R}^2\text{OH}$  (R<sup>1</sup>, R<sup>2</sup> = same as above) with cyclic P compds. II (m = same as above) to give (meth)acrylate esters III (R<sup>1</sup>, R<sup>2</sup>, m = same as above), (2) acylation of all OH groups of the saccharides selected from (i), (ii), and (iii) with C<sub>2</sub>-8 acylation agents, (3) halogenation of the anomeric C of the O-acylated saccharides, (4) reaction of the resulting saccharide halides with  $\text{R}^3\text{R}^4\text{NR}^5\text{OH}$  (R<sup>3</sup>-R<sup>5</sup> = same as above), and (5) reaction of the resulting  $\text{R}^3\text{R}^4\text{NR}^5\text{O}-\text{Acyl.Sug.}$  [IV; R<sup>3</sup>-R<sup>5</sup> = same as above; Acyl.Sug. = residue of the saccharides (i), (ii), or (iii) in which all free OH groups are acylated] with III. (meth)acrylate ester polymers  $[[\text{H}_2\text{CCR}^1[\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Acyl.Sug.}]]_a\text{Mb}]_p$  (V; R<sup>1</sup>-R<sup>5</sup>, m = same as above; M = group derived from other radically polymerizable monomers; a = 0.01-1; b = 0-0.99; p = 1-1000) are prepared by radical polymerization of I with other monomers (M). (meth)acrylate ester polymers  $[[\text{H}_2\text{CCR}^1[\text{CO}_2\text{R}^2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)^m\text{N}+\text{R}^3\text{R}^4\text{R}^5\text{O}-\text{Sug.}]]_a\text{Mb}]_p$  (R<sup>1</sup>-R<sup>5</sup>, m, M, a, b, p = same as above; Sug. = residue of the saccharides above in which acyl groups are hydrolyzed) are prepared by hydrolysis of the acyl groups of the saccharide residues of V. Thus,  $\text{H}_2\text{C}:\text{CMeCO}_2(\text{CH}_2)_2\text{OP}(\text{O})(\text{O}-)\text{O}(\text{CH}_2)_2\text{N}+\text{Me}_2(\text{CH}_2)_2\text{O}-\text{Ac.Glc}$ , prepared in the 5 steps above, was polymerized in

the presence of AIBN and hydrolyzed to give a homopolymer hydrolyzate. Blood platelets did not adhere to a film from the hydrolyzed polymer.



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(FILE 'HOME' ENTERED AT 11:28:17 ON 20 JUN 2007)

FILE 'REGISTRY' ENTERED AT 11:28:31 ON 20 JUN 2007

L1 STRUCTURE UPLOADED

L2 24 S L1 SSS SAM

L3 1449 S L1 SSS FULL

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:31:56 ON 20 JUN 2007

L4 463 S L3

L5 2 S L4 AND STARCH?

L6 1 S L5 AND POLYSACCHARIDE?

L7 5 S L4 AND POLYSACCHARIDE?

L8 1 S L4 AND AMYLOSE?

L9 6 S L4 AND ?SACCHARIDE?

L10 3 S L4 AND ?STARCH?

L11 0 S L5 AND BACTERIA?

L12 0 S L5 AND HERPES?

L13 0 S L5 AND INFLUENZ?

L14 0 S L9 AND BACTERIA?

L15 0 S L9 AND HERPES?

L16 0 S L9 AND INFLUENZ?